BATS of the Illawarra Region

by

N. H. Robinson

This report, dealing only with bats, concerns part of a long-term survey of the mammals, of the Illawarra district south of Sydney, New South Wales. The variety of environments present include urbanised and rural coastal plains and tablelands, forested ranges, a cliffed escarpment, rainforest, wet and dry sclerophyll forest, as well as heathlands and gorges in some locations. Two species of Megachiroptera and fourteen of Microchiroptera were recorded. Notes on the status and distribution elsewhere in Australia have been taken from Strahan (1983). These have been compared with the status in the Illawarra district. Specimens collected were lodged in the Australian National Wildlife Collection, CSIRO Division of Wildlife and Rangelands Research, Canberra. I have also examined relevant material at the Australian Museum, Sydney. The reference prefixed for these two institutions are CM and M respectively. Where a series of specimens is available, a sample only is listed.

Suborder Megachiroptera: Family Pteropodidae

Grey-headed Flying-fox *Pteropus poliocephalus* Temminck

The species is an annual migrant. It usually arrives about late October and departs during April but the dates are variable. The author has recorded it arriving between early October and late November and leaving as early as March or as late as early May. There are three 'permanent' camps during the warmer months known to the author; and breeding occurs in them. One is at Jamberoo in a rainforest gully. A camp at Comerong Island, near Nowra is in a locality where rainforest elements predominate on sandy soil. These locations have been used since the turn of this century and probably well before. Another site in a rainforest gully near Mt Kembla, Wollongong, was regarded as a 'temporary summer' site in the 1960's but it has become a 'permanent summer' camp having been used for at least the last 10 years. A possible fourth site was reported by a nearby landowner in the 1960's. The camp was stated to be in the Shoalhaven Valley west of Bugong, however, the area is rough and very difficult of access so the report was not confirmed. During this time I spotlighted the species feeding in eucalypts in the Shoalhaven Valley on a number of occasions.

Common Bent-wing Bat, *Miniopterus schreibersii,* Royal National Park. Photo: RZS Collection.

Flying-foxes in this area use 'temporary summer' camps perhaps once only or spasmodically for a short period of time. Over a span of 20 years I have recorded seven such camps and there have almost certainly been others. Occasionally Flying-foxes have been seen by me outside the dates mentioned above. These are: 26 May, 1983 at Berkeley, Wollongong; 7 June, 1983 at Warilla, Shellharbour and the first week of August, 1968 at Mt Keira, Wollongong. On rare occasions such as in 1972, a small number has remained at Jamberoo throughout the year (pers. comm. B. Creagon).

The most southerly 'permanent summer' camp examined by the author and containing young bats is in the Lake Conjola district about 100 air km from Wollongong. It has been used since the turn of the century and possibly long before then. On 4 February, 1984 I observed only a small number. On 3 September, 1985 I saw many more. The species had been in residence throughout the previous summer and the winter (pers. comm. J. Condie). I know of one small 'camp' near Sussex Inlet used in early 1982 (pers. comm. N. Leonard) and of one used in past years in the Bendalong area (pers. comm. J. Condie).

Specimens Examined

CM 951♂ Skin and skull, Mount Kembla 19.1.66
CM 2447♀ Skull, Jamberoo, Kiama 23.3.68
CM 4584♂ Alcohol, Comerong Island, Nowra 19.3.70

Little Red Flying-fox *Pteropus scapulatus* Peters

This species is periodically recorded. One individual was taken at Fairy Meadow, Wollongong on 16 March, 1979 and an electrocuted one was observed by the author on 5 February, 1983 at Bomaderry near Nowra.

At Comerong Island, it has been recorded with Grey-headed Fruit-bats on a number of occasions by a resident farmer. The author has visited the Jamberoo camp annually since 1965-66 and has yet to see *P. scapulatus* in residence although it might have been present during part of the warmer months when the camp was not visited.

Specimens Examined

Unregistered specimen in ANWC, ♂ Alcohol, Fairy Meadow, Wollongong 16.3.79.

Suborder Microchiroptera: Family Emballonuridae (Sheathtail-bats)

Yellow-bellied Sheathtail-bat *Taphozous flaventris* Peters

This tree-roosting species is widespread in Australia. It is represented by two local specimens in the Australian Museum.

Specimens Examined

M8478 Woonona 1964
M2349 Stanwell Park 1925

Family Molossidae (Freetail or Mastiff bats)

White-striped Mastiff-bat *Tadarida australis* (Gray)

Another generally tree dwelling species that is widespread in Australia is *T. australis* which is the largest of its genus. There are specimens from Mittagong, Cambewarra and Aylmerton. The species has been recorded at the Barren Grounds Nature Reserve (pers. comm. C. Tidemann, 1984).

Gould's Long-eared Bat, *Nyctophilus gouldi*. Photo: RZS Collection.

Specimens Examined

M3047 Mittagong 1922
M5574 Cambewarra 1934
M7474 Aylmerton 1949

Eastern Little Mastiff-bat *Mormopterus norfolkensis* (Gray)

The distribution of the species is restricted on the Australian east coast. It usually roosts in tree hollows but the author caught one in the roof of Picton Primary School at the same time as a colony of *Chalinolobus gouldii*. Another specimen came from North Beach, Wollongong.

Specimens Examined

CM4595 Picton 3.4.69

Family Vespertilionidae ('Ordinary' Bats)

Gould's Long-eared Bat *Nyctophilus gouldi* Tomes

This bat is common in south-eastern Australia and it is fairly common and widespread in this district, judging by the numbers seen by the author. The species dwells in tree hollows and buildings.

Specimens Examined

CM4587 ♂ Mt Keira, Wollongong 15.3.69
CM4589 ♂ Keiraville, Wollongong 19.3.69
M6272 Robertson 1937
M11557 ♂ Pheasant's Nest 8.79

Lesser Long-eared Bat *Nyctophilus geoffroyi* Leach

This species is widespread over most of Australia. It is common locally judging by the numbers examined throughout the district. It can be found roosting in a wide variety of environments.

Specimens Examined

CM 1450 ♂ Campbelltown 30.1.65
CM 2152 ♂ Bowral 8.12.67
CM 4596 ♀ Moss Vale 16.3.69

Common Bent-wing Bat *Miniopterus schreibersii* (Kuhl)

The species is common and widespread in eastern and northern Australia, as it is in this district. It has been found in houses and stormwater pipes beneath roadways. The species usually roosts in caves.

Specimens Examined

CM1815 Kiama 1966
CM4597 ♀ Woonona 25.10.69
CM15812 ♀ Royal National Park 13.6.79

Gould's Wattled Bat *Chalinolobus gouldii* (Gray)

This common species is widespread in Australia, as it is in this district. A number were recorded in buildings and stormwater pipes. Fifteen were netted together with one *T. norfolkensis* as they flew from the roof of Picton Primary School. A wide variety of roosting sites is utilised.

Specimens Examined

CM4590 ♀	**Picton 3.4.69**
CM16106 ♂	**Moss Vale 16.4.62**
CM16107 ♀	**Colo Vale 3.64**
M3656	**Berrima 1924**
M8473	**Royal National Park 1964**

Chocolate Wattled Bat *Chalinolobus morio* Gray

Although common in southern Australia, the author has only two local records. One is from Berrima, and C. Tidemann (pers. comm.) caught an example at the Barren Grounds Nature Reserve in 1984. The species utilises a variety of roosting sites although tree hollows are usually favoured.

Specimens Examined

M 3439 Berrima 1924

Large-footed Mouse-eared Bat *Myotis adversus* (Horsfield)

This uncommon species has a coastal distribution in eastern and northern Australia. One was caught in Royal National Park. Roosting sites are quite varied but it is usually a cave-dwelling form.

Specimens Examined

M9260 Royal National Park 1970

Greater Broad-nosed Bat *Scoteanax ruepellii* Peters

Only one specimen of this rare, eastern Australian species was recorded. It was lying at the foot of a light pole at Corrimal, Wollongong. Tree hollows are usually chosen as roosting sites.

Specimens Examined

CM4586 ♂ Corrimal 8.2.68

Great Pipistrelle *Pipistrellus tasmaniensis* (Gould)

This rather rare species inhabits the coastal region of southern Australia. Two specimens are in the Australian Museum from Berrima. Roosting sites are quite variable.

Specimens Examined

M3659 Berrima 1924
M3660 Berrima 1924

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Royal Zoological Society Wildlife Forum — 8 p.m. Wednesday 26 February, 1986

Two speakers on Bats

- Dr Dedee Woodside, Curator of Mammals, Taronga Zoo talks about FRUIT BATS. She will discuss the biology of this largest member of the bat family, and,
- A speaker from 'Make Friends with a Bat' will talk on some aspects of the Gordon (New South Wales) bat colony.

The forum will be held in the
Education Centre, Taronga Zoo
(entry at western end of car park)
at 8.00 p.m.

All are welcome There is No Charge

Lesser Long-eared Bat, *Nyctophilus geoffroyi*. Photo: RZS Collection.

King River Eptesicus *Eptesicus regulus* (Thomas)

Found in southern Australia, the species is common in limited areas. The species was netted, identified and released at the Barren Grounds Nature Reserve in January, 1984 (pers. comm. S. Churchill). It usually roosts in tree hollows.

Little Forest Eptesicus *Eptesicus vulturnus* Thomas

This common southern Australian species was recorded in two localities. One was caught in a house at Helensburgh and the species was netted, identified and released at the Barren Grounds Nature Reserve in January, 1984 (pers. comm. S. Churchill).

Specimens Examined

CM4599 ♂ Helensburgh 18.2.71

Large Forest Eptesicus *Eptesicus sagittula* McKean, Richards and Price

This species inhabits south-eastern Australia and is common in limited habitat. It was netted, identified and released at the Barren Grounds Nature Reserve in January, 1984 (pers. comm. S. Churchill).

DISCUSSION

There is a great diversity of environments within the nominal boundaries of the author's mammal survey area. The Illawarra Ranges enclose a coastal plain which is heavily urbanised in parts but is rural elsewhere. Backing the forested ranges are the southern tablelands which are partly rural and partly forested. Not far outside the survey area is the limestone region at Bungonia where there are many caves. Other bat species almost certainly will be found, e.g. *Rhinolophus megaphyllus* which has been recorded at Bungonia but not within the survey boundaries. Revisions in progress of genera of microchiroptera may lead to changes in the taxonomic status and nomenclature of some forms.

The long term prospects of the Jamberoo Flying-fox camp are uncertain. Blue metal quarrying which is quite extensive in the nearby area, might ultimately embrace the hills surrounding the site. The Mt Kembla and Comerong Island camps appear safe at this stage and if the reported camp west of Bugong does exist it would be in Morton National Park.

The author has seen fewer insect-eating bats around Wollongong in recent years (e.g. hawking after insects around night tennis and street lights) but there has been a dearth of easily visible diurnal insects since the late 1960's when the numbers and species of butterflies declined significantly. Conceivably the nocturnal insects could also be less abundant. Air pollution levels in this industrial area might be of significance. Bats are frequently seen when the author is spotlighting at night in pockets of bushland. It is to be hoped that there will be no further decline in their status as economic development continues within the survey area.

ACKNOWLEDGEMENTS

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REFERENCE

STRAHAN, R. (1983). The Australian Museum Complete Book of Australian Mammals. Angus and Roberston, Sydney.

N. H. R. 159 Gipps Road, Keiraville 2500.

Gould's Wattle Bat, *Chalindobus gouldii*. Female. From Smith's Lake. December, 1978. Photo: RZS Collection.